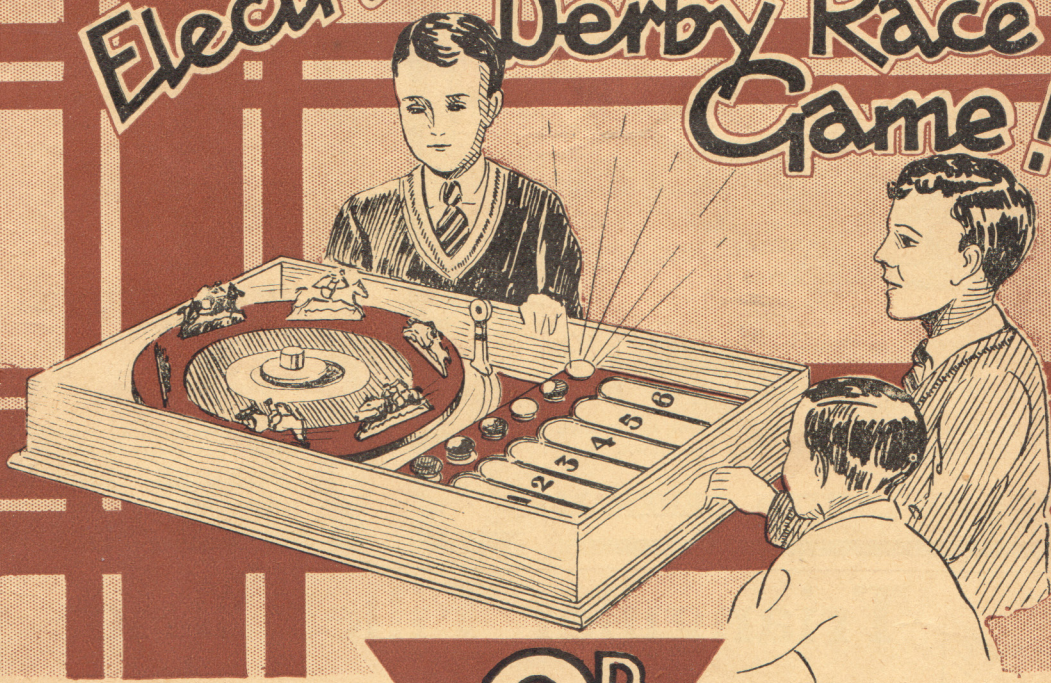


Hobbies

WEEKLY

An Electric Derby Race Game!



June 1st. 1935

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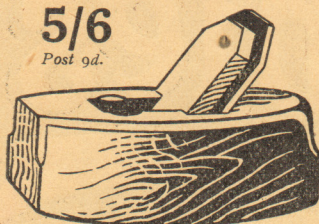
Vol. 80. No. 2067

THE FRETWORKER'S AND
HOME CRAFTSMAN'S JOURNAL

Big Value in Smoothing PLANES

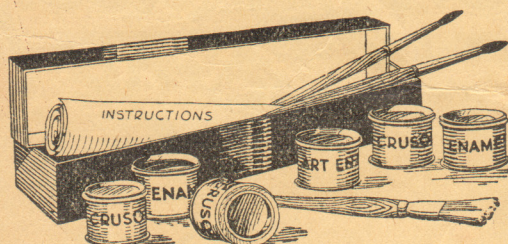
5/6
Post 9d.

This is a plane you will be proud to own. It has a beautifully finished body and 2in. double iron. A practical tool in every way and big value at 5/6.



Hobbies Ltd., Dereham and Branches

Get this HOME Painting Outfit



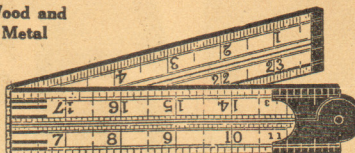
Every handyman needs this Outfit. With it you can paint on wood, glass, leather, pottery, etc. — a delightful and profitable hobby. Complete with 6 tins of enamel, 3 brushes and instructions as shown.

1/3
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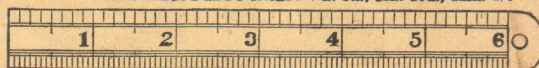
RULES FOR CRAFTSMEN

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Metal



Superior
Boxwood
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Rule 2/-

Steel Rule. Stamped and Polished 4in. 8d., 6in. 10d., 12in. 1/6



Obtainable from any Hobbies Agency or by post (2d. extra) from
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Have You Seen the NEW "Reeded" LEGS?

Here are two legs just added to the Hobbies range. They are different to the usual "twist" or square patterns. Instead, there is a "reeded" or fluted design which gives a big touch of distinction.

These are legs you can use on the best jobs. They are beautifully cut and finished and are offered at prices which bring them within the reach of everybody. The tall leg is No. 532 and the short one No. 534.

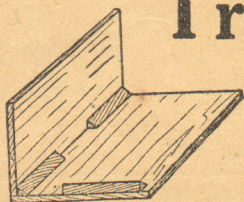
No. 532. 36ins. x 1½ins. "Reeded"
Legs in Beech, 3/9 set of four.
Post 1/-

No. 534. 29ins. x 1½ins.
"Reeded" Table Legs in Beech.
3/9 set of four. Post 1/3

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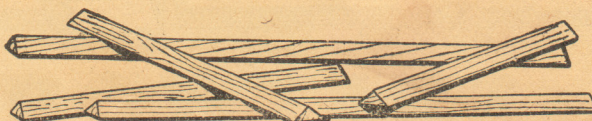
Triangular Fillet Strips



These strips are supplied in two-foot lengths, and are suitable for blocking pieces in corners of cabinet and carpentry work. They are cut from good quality wood, and can be stained to match any work. Also suitable for forming base strips behind cut-out pictures and calendars.

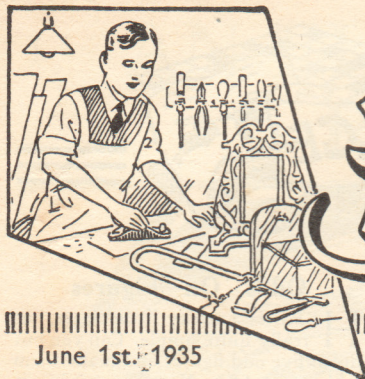
1-in. Strip	...	Price 1d.	per Length.
1-in. "	...	Price 1½d.	" "
1-in. "	...	Price 2d.	" "
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Postage extra to above prices.



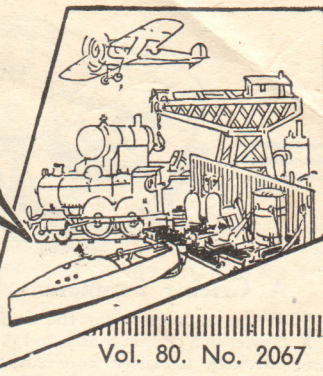
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In 2-ft. Strips ready for use. Oak and Mahogany.



Hobbies

WEEKLY



June 1st, 1935

Letters should be addressed to
The Editor, Hobbies Weekly,
Dereham, Norfolk.

Vol. 80. No. 2067

ELECTRIC novelties always appeal to readers and I am sure the Derby Race Game will do so. It is a tantalizing piece of mechanism and I nearly had to sack George, the office boy, before he would give over twiddling the disc and putting his stakes on the coloured lights. Then when I had it on my desk everybody who came along had a try. Just make one for yourself and see how popular it will be.

A NUMBER of readers have asked at various times for details how to make a trailer caravan. I am pleased to say, therefore, that a complete article on the subject, with illustrations, will appear next week.

AS promised, I am now able to give the winners in our Film Competition. There was a large number of entries although, candidly not so many as I anticipated! And of these about half had failed to recognize all the stars shown, and some who had got the names correctly had not included a list giving the order of popularity. The most popular stars, according to the voting, were in this order: Jack Holt (1), Clark Gable (6), Ronald Colman (8), Tom Mix (4), Jack Hulbert (7), Tom Walls (3), Ralph Lynn (5), Buck Jones (9) and Harold Lloyd (2). The numbers in brackets are those under the pictures in our issue dated May 4th.

No single entry was able to forecast the popularity according to general vote, and only two came anywhere near. In consequence we are

arranging for the following readers to visit their local cinemas as stated in the competition rules. So now they will be "swanking" to the pictures for two weeks and have a signed photograph of one of the British Film Stars. The fortunate ones were C. E. Drewson of Sketty, Swansea and E. Rebar of Byker, Newcastle. Well done, you two!

NOTES of the WEEK

*The Electric Derby—A Caravan
Next Week—Our Film Competition—Seats for the Winners—
Stamp Collecting on a Car.*

HOW many enthusiasts who go in for stamp collecting would care to display their collection as our friend in the picture does? The album is his motor car, and it certainly is a handy way of taking your stamps round to show a friend. Needless to say this quaint idea comes from America. It is estimated there are about

20,000 stamps on this car, and are valued at from nothing to over 22 dollars. We are told, too, it took 300 hours of labour and about three gallons of gum to get them all there. Anyway, my car is not going to be defaced that way, much as I like stamps!

ANOTHER League Club is being formed in India, this time in Rawalpindi. The member, who is extremely enthusiastic and

would like other readers in this district to get in touch with him, is R. Khanna of 124 Market Road, Pindi. I hope our other friends in India will take note. By the way, it is pleasing to find so many readers who make use of our Correspondence Club Lists.



The Editor

THE FUN AND PUZZLE PAGE

A Cricket Problem

HOW is it possible for the same bowler in a cricket match to take three wickets in three consecutive balls, and yet each wicket to fall in a different over?

If you cannot work it out, look at the answer at the foot of the third column.

Why did the dewdrop?

Because the moss-rose.

Perhaps the best palindrome (a word, verse or sentence that is the same read either backwards or forwards), is our first father's greeting to our first mother—"Madam, I'm Adam."

Why did the sausage roll?

Because it saw the apple turnover.

"The lady next door," said a tramp, "gave me one of her beautiful home-made loaves. Wouldn't you like to give me something to go with it?"

"Well, I could give you a digestive pill."

The typist had addressed a letter to Newport, Mon., as Newport, Monday, and in due course the letter came back through the Dead Letter Office. On being asked sarcastically by her chief whether she had ever heard of such a place as Newport, Monday, she replied tearfully—"No, but I thought it was all right, because I've often heard of Sheffield Wednesday."

SHOPMAN (showing customer golf stockings): "Wonderful value, sir. Worth double the money. Latest pattern, fast colours, hole-proof, won't shrink, and it's a good yarn."

CUSTOMER—"Yes, and well told."

What made the cake-walk?

Seeing the biscuit box.

SMALL BOY—"Mummy, Daddy takes his jacket off when he is going to do some hard work, doesn't he?"

MOTHER—"Yes, dear."

SMALL BOY—"Then, why does he take his jacket off when he is going to wash?"

Odds On Figures

HERE is a tricky little teaser, but really quite simple. Can you put down five odd figures and make them add up to 14? Not so easy as it sounds perhaps, but if you put down 11 and then three 1's underneath you will find the total is 14 as required.

Why is the inside of everything so mysterious?

Because we can't make it out.

Why does a donkey eat thistles?

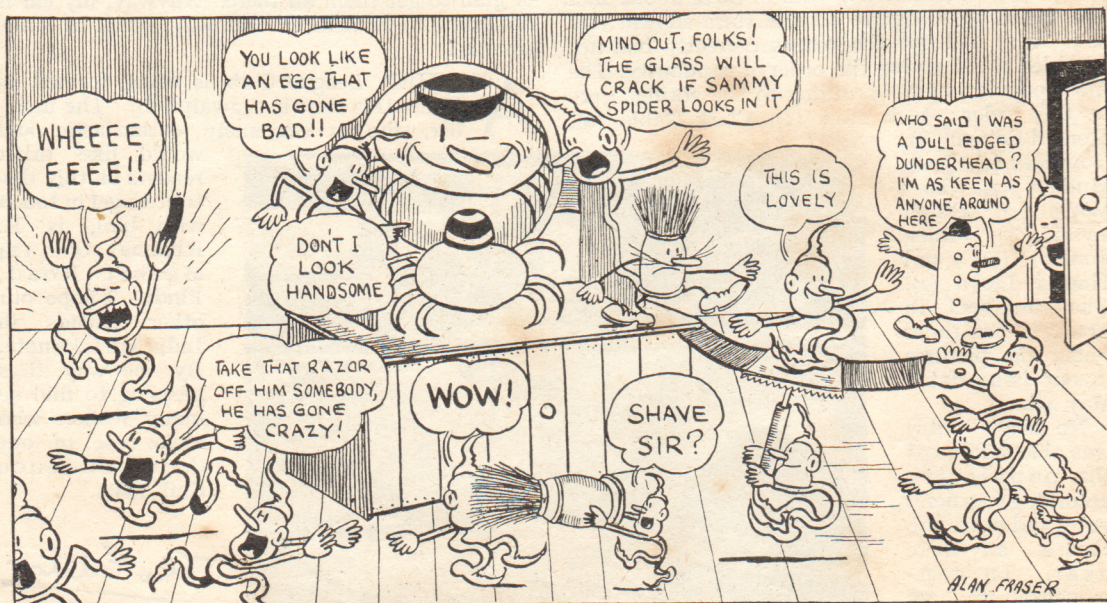
Because he's an ass.

Answer to the Cricket Problem

HERE is the answer to the Cricket Problem.

The bowler takes the 9th batsman's wicket with last ball of one over—the 10th batsman's wicket with the 1st ball of his next over. The batting side then follow on and the bowler takes the first wicket with the first ball of his next or first over in the second innings.

THE IMPIES BUILD A SHAVING CABINET



AN ELECTRIC DERBY RACE GAME

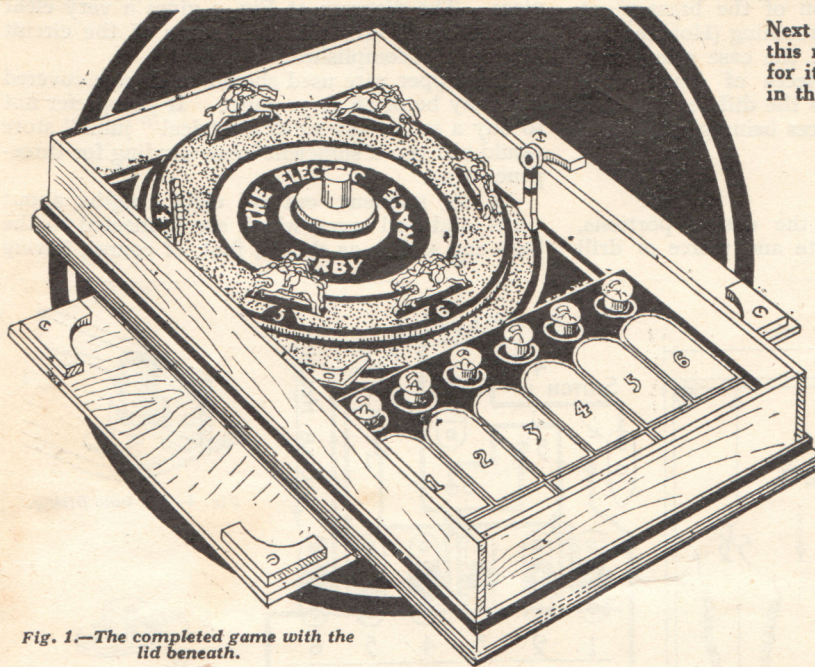


Fig. 1.—The completed game with the lid beneath.

UNDoubtedly, the splendid electrical Racing Game novelty, illustrated herewith, is one which will have an irresistible appeal to every reader. It is all very simple, interesting, and inexpensively made, too, the full-size patterns being provided in this week's centre pages.

A glance at the various diagram details suffice to explain most of the actual work involved. Although the electric wiring circuit may appear rather intricate to some workers, this write-up deals specially in detail with the various constructional stages—thus eliminating possible difficulties.

A Game of Chance

It is, as you will find, almost entirely automatic and governed by electricity—a game that will amuse players and onlookers alike. It also has the advantage of being self-contained, compact and of convenient portable size.

Quite frankly, once having “backed” your fancy, it is an anxious moment while the statuette disc wheel is revolving (after being given a sharp twist by the “bookie” or “croupier” who covers the stakes).

When the speed reduces, a line of six coloured bulbs flash one by one in brilliant lightening effect. The disc finally stops

Next Wednesday is the Derby. Make this miniature race game in time for it. Full size patterns are given in the centre pages.

rotating with a soft click, thus signifying a “horse” is invariably opposite the winning post. The number is accordingly registered or indicated by the bulb that remains alight. The stake board is so arranged that one can “back” the 1st, 2nd or 3rd pair instead of staking straight.

As it will be observed, the whole article is constructed throughout from $\frac{1}{4}$ in. thick birch plywood and mahogany fretwood. If you have no suitable material available, a

parcel (No. T.M. 296.) containing sufficient wood, moulding, screws, etc., for this special Design is obtainable from Hobbies Ltd., costing only 2/6 or 3/- post free.

It should be noticed that the electrical fittings are not included in the above parcel, but are obtained independently from any local radio shop or the well-known 6d. stores at the prices quoted.

Commencing Work

Assuming the complete materials are at hand, it will be already understood most of the patterns remain adhered to the wood.

Whilst waiting for the adhesive to dry out, a small plain case should be made as shown at Fig. 1. This is cut from the mahogany fretwood, the sides measuring exactly 9 $\frac{1}{2}$ ins. long by 1 $\frac{1}{4}$ ins. wide,

MATERIALS SUPPLIED

- 1 piece birch plywood, 14 ins. long by 10 $\frac{1}{2}$ ins. wide, $\frac{1}{4}$ in. thick.
- 3 pieces mahogany fretwood, 12 ins. long, 6 ins. wide, $\frac{1}{4}$ in. thick.
- 2 pieces No. 24 moulding, mahogany, 11 ins. long.
- 2 pieces ditto, 7 ins. long.
- 1 piece stripwood blocking, 6 ins. long by $\frac{1}{4}$ in. square.
- 1 piece sheet brass, 3 ins. long by 2 ins. wide by 1/16 in. thick.
- 1 piece $\frac{1}{4}$ in. dowel rod, 3 ins. long.

A complete parcel of wood for all parts, including moulding, dowelling and the necessary brass screws is supplied by Hobbies Ltd. for 2/6. Ask for Parcel No. T.M. 296 and add sixpence if ordering by post.

- 2 doz. brass roundhead screws, size $\frac{1}{4}$ in. by 2 in.
- 1 doz. ditto, $\frac{1}{4}$ in. by 3 in.

The wood and screws shown are supplied by Hobbies Ltd. as mentioned in the article.

ELECTRICAL ACCESSORIES

- 6 $\frac{1}{4}$ in. bulb holder fittings, each 1 $\frac{1}{2}$ d.
- 6 $\frac{1}{4}$ in. bulbs, (3.5v.) each 1d.
- 1 doz. brass roundhead bolts (engineer), size $\frac{1}{4}$ in. by $\frac{1}{4}$ in. thick, 5d.
- Some (S.W.G.) 28 double silk covered copper wire. About 3d.

Derby Race Game—(continued)

whereas the ends are $5\frac{1}{2}$ ins. long to allow for the simple butt joint. The overall size of the lid and bottom pieces thus measure $9\frac{1}{4}$ ins. long by $5\frac{1}{4}$ ins. in width.

With fine fretwork nails, attach the sides to the ends, but before attaching the bottom, however, mark off the centre position of the brass pivot support (see Fig. 2). The moulding (Hobbies No. 24) is mitred neatly around the case sides, or if desired, left plain. Six pieces of $\frac{3}{8}$ in. square stripwood blocking is cut to the different lengths (Fig. 2) the four longest pieces being glued to the corners indicated.

Fitting the Parts

Having neatly cut out the design portions, select the bulb support plate and pierce or drill

to be made without any trouble or awkwardness if tried otherwise.

Circuit Connections

It would be wise to do this now, so the plate and the two $\frac{3}{8}$ in. long corner blocks may be glued in place. The diagram at Fig. 2 gives a very clear impression of how this first stage of the circuit (Fig. 3) is accomplished.

The copper wire used should be double covered and may be of 28 or 30 gauge. If you prefer not to buy a spool, any small electrical "junk" store would sell you a sufficient loose winding for three-pence or so.

At the moment, cut off eight lengths about 12 ins. and curl seven which are connected to the bulb cup screws as shown, first, of course, baring

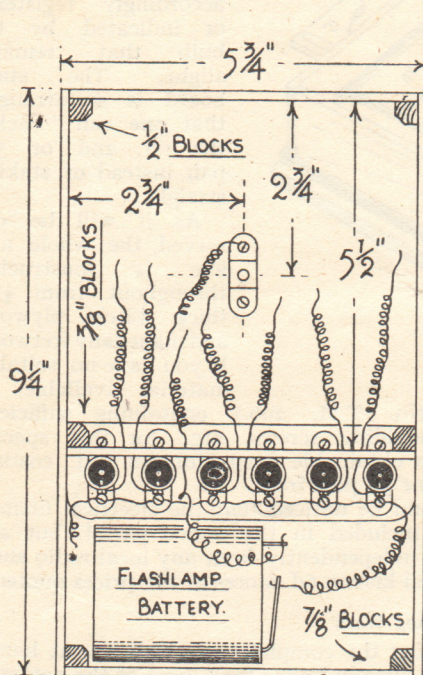


Fig. 2—Dimensions of the case with wiring and position of components.

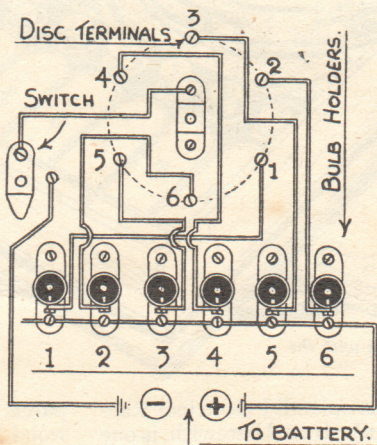


Fig. 3—The electrical lay-out and bulb holders.

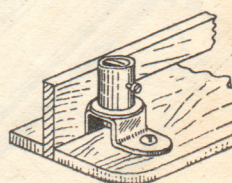


Fig. 4—The bulb fitting.

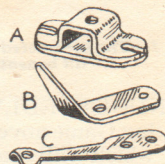


Fig. 6—The brass connections.

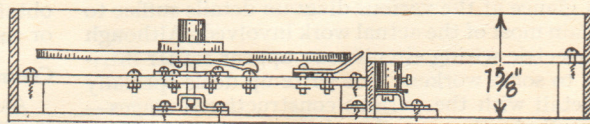


Fig. 5—A section showing the screw connections with the shoe in contact on one.

tiny holes through for the fittings as indicated by the dotted lines. Remove the paper remains from this and the framing piece, the tenons (A) being glued into the relative mortises as seen at Fig. 4.

The six bulb holders are held loosely in place with $\frac{1}{4}$ in. by $\frac{1}{2}$ in. brass roundhead screws as shown, and having set the lot inside the case (see diagram), find the correct position by setting the bulb stake board portion on top.

The bulb holes of the latter should engage with the holder screw cups; but if not, a few slight adjustments may be necessary before pushing the stake board finally against the inside of case ends.

The position should be marked, and the plate removed to enable the circuit wiring connections

the ends of each wire. Bare the other halfway, and having loosened the brass bulb plates, slide it underneath and screw the plates tightly in position. The other two bared wire ends are later connected to an ordinary $4\frac{1}{2}$ -volt flashlamp battery as depicted in the drawing.

Before proceeding further with the wiring, obtain a piece of $1/16$ in. thick sheet brass in order to make the pivot support and plates (A), and switch arm (B) illustrated at Fig. 6. The contact shoe (C) must be made from light springy brass or thin tin.

Relative Positions

The actual size and shapes of these are given with the patterns, and must be faithfully

Derby Race Game—(continued)

reproduced in those materials if good results are to be expected. All the holes should be drilled before cutting out and finishing off with a file.

The contact shoe terminal hole is slightly countersunk so as to click and "lock" over the roundhead bolts used as terminals (see Figs. 5 and 9). The edges are bent up a little to allow it to "glide" around and over the terminal heads.

Once made, the pivot support is screwed centrally in position to the already marked case bottom; the loose wire is then connected as shown. By the way, the pivot rest plate is only centre punched, whereas the upper base board plate is drilled through and screwed to the latter as indicated by the dotted lines on pattern.

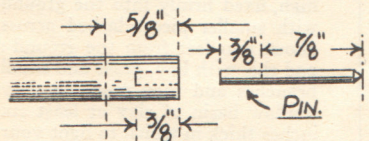


Fig. 7.—The dowel spindle and brass pivot pin.

The switch and six terminal bolts are screwed to the board as observed at Fig. 5. The circuit wires are now connected to their relative corresponding numbered terminal projections underneath as shown by the diagram (Fig. 3), the whole being screwed down to the corner blocks with the 3/4 in. long screws.

It should be noted that the switch arm rests on a small fibre or wooden washer. This should be of adequate thickness to raise it almost on level with the terminal head.

Disc Spindle and Pivot

Details of the disc spindle and brass pivot are given at Fig. 7. The spindle is made from a piece of 3/4 in. dowelling, the pivot hole being first carefully centred and drilled to depth before cutting to length shown. The pivot itself is made from 1/4 in. thick brass wire rod which is filed to a flat point and inserted strongly in place.

Glue the spindle to the disc flush with the bottom side, the contact shoe being screwed on top as

explained (Fig. 8); the disc washer is glued over the spindle on the face side.

It is imperative that the shoe is pointing directly opposite the mortise indicated, which, of course, is No. 1 on the pattern side. The reason for this will be appreciated if the circuit is carefully scrutinized and the numbers followed.

The contact shoe will need some final minor adjustments in order to work smoothly as intended. Therefore, connect the battery in series and screw the six bulbs tightly in their holders. Switch on, set the disc wheel in its plates and twist same sharply in the left direction.

Should it rotate in jerky, noisy fashion, the shoe has been bent down too much.

Bend it up a little, and keep adjusting until it revolves freely with a smooth clicking sound. It should stop with a soft final jerk owing to the shoe hole engaging with the bolt terminal heads. In consequence, this automatically completes that particular "broken" circuit, the corresponding number of which is indicated by the bulb remaining alight.

Having found everything working according to plan, remove the bulbs which should be coloured orange, purple, red, blue, yellow and green respectively. Ordinary "Reeves" water colours will be found to do the job with effective results if applied evenly and thinly.

The detachable statuette figures and winning post should be fitted in their respective positions, the backs and all edges shown white being coated with black drawing

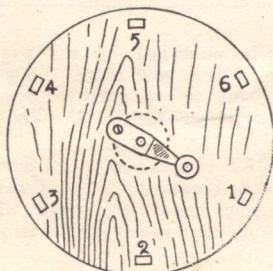


Fig. 8.—Back view of disc, with brass contact shoe.

ink. Fig. 1 shows how the four corner pieces are attached to the lid with one single screw. This procedure completes the work which now remains to be polished a nice light mahogany shade on the outside only.

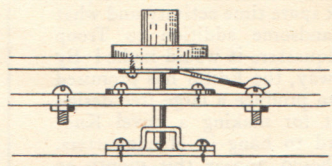


Fig. 9.—Showing the disc connections on the screws.

New Books on Model Aircraft and Photography

THOSE who like to experiment with model aeroplanes driven by power, should certainly get a new book called "Power Driven Model Aircraft." It is written by F. J. Camm, who is a thoroughly experienced master of this subject, and who yet can write in simple language which even the beginner can understand and follow.

The book is well illustrated with actual photographs and working drawings. Articles cover the making of steam, petrol and com-

pressed air models, as well as dealing with principles, and theories.

The book is obtainable for 1/2, post free, from George Newnes, Southampton St., Strand, W.C.

ANOTHER useful book for amateur photographers has recently been published by the Fountain Press, 19 Cursitor St., E.C.4., at the popular price of 1/-.

It has excellent illustrations and chapters on every aspect which the amateur is likely to need advice, as well as tables and

the different processes set out plainly and easily. The book is an excellent addition to the series of photographic articles now running in our pages.

THE Editor is, of course, happy to recommend any reader to books on any subject in which he may be interested and to obtain them for him if he sends along cost and postage. Enclose a stamped addressed envelope if you want a reply and address your letter to The Editor, Hobbies Weekly.



Scout Notes and News!

by
The Skipper



A Spare Time Activity

SCOUT James Edwards of Manchester, writes to say that at a recent exhibition he saw some pleasing designs on plates and saucers made with the outside covers of a well-known brand of cigarettes; these apparently were cut out to design and stuck on the plates. Perhaps he would be kind enough to send me further particulars which I shall be pleased to pass on to any interested Scout or Scouter.

Tenderpads & Tenderfeet

WHAT a fuss some boys make about tying a few knots; the picture on this page shows a lady expert at the game, she is Miss Margaret Simms, a 21-year old Californian girl who has tied all the 167 various loops and knots. What about this for a Troop or Pack spare time activity and what a handsome addition to Troop headquarters it would make! By the way, the Editor has promised me to produce a large free design chart for making a novel Knot Board to hang in Headquarters. It should appear this month so keep a look out for it.

For Metal Workers

THE entries for the recent "Gadgets" competition have now been judged and were so good that it was decided to divide the prize and goods have been sent to Scout G. Parkes of 36th Walsall Troop who sent in a suggestion for a metal work design of a camper's knife and fork; both are made from 20 gauge metal and fold up to about four inches in length. Once again I shall be pleased to supply details to those interested. Melville Irons of Wadebridge, Cornwall, also sent in an entry worthy of comment, in the form of a boot rack for a Troop room.

A Jubilee Competition

WRITE an essay of about 100 words on "How I spent

Jubilee Day." Entries will be judged on their neatness and interest and must be in by June 15th. A prize of 10s. worth of goods from Hobbies Handbook will be awarded and the best effort

A Thought on Scout Law No. 4

"Do nothing to hurt or offend anyone."

will be published on this page. Don't forget your name and address and send the entry to "Scout Competition." Hobbies Weekly.

TAKE your camera to camp and "Be Prepared" for our Camping snaps competition which will be announced in our August issue.

Table Camp Fire

TRY a table camp fire at your next camp, it is easy to make and very economical and much more satisfactory than the ordinary camp fire and also it will add

to the general interest of your camp.

All you need are four strong wooden supports about four feet high, fixed firmly into the ground with smaller pieces lashed across about two feet from the ground; pad this with hay, grass and small branches and then mould a very shallow basin of clay at least six inches thick in which to light your fire. Two more posts six feet high with a stave fixed at the top on which to hang your dioxies completes the job. The clay holds the heat well and cooking is possible long after the fire is out.

Heath Fires

DO be careful to avoid the danger of heath and woodland fires. I had the misfortune recently to witness a small heath fire which had been deliberately ignited; it was a pitiful sight to see the animals and birds fleeing in terror from the flames and I would ask all campers to avoid this possibility.

Fires and Fuels

A CAMP fire is not a bonfire, it should be as small as is possible to do the necessary cooking, a fire should be started with ivy, old birds' nests, twigs and dead wood off a tree, never use paper, hay or straw and give the flame something to climb. Don't forget to take matches to camp with you.

Ash burns well green or dry; it is easy to chop and lasts longer than other woods.

Beech gives a big flame green or dry.

Birch lights easily and burns quickly and clearly.

Chestnut is good if seasoned.

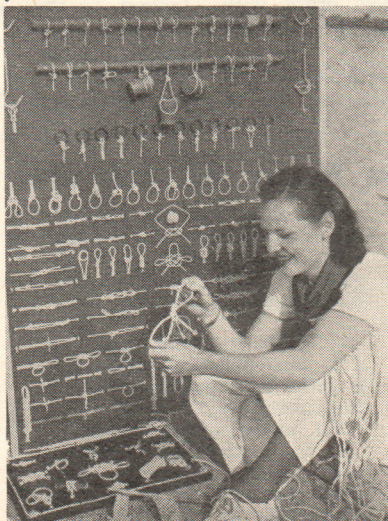
Elder burns well but with bitter smoke.

Elm is hard to light, smoulders and gives little flame.

Holly burns well green and makes fine embers.

Oak burns steadily and slowly.

Pine is excellent for kindling.

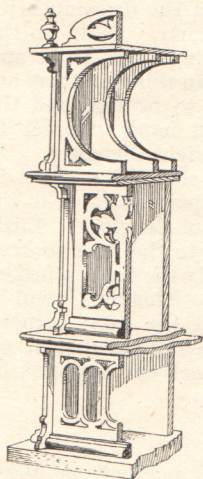


For the FRETWORKER

A MODEL GRANDFATHER'S CLOCK

THIS week's Gift Design Sheet (No. 2067) is for making an ornamental miniature Grandfather Clock. Cut in fretwood and provided with a reliable movement so the whole thing will make up a practical and successful piece of work, the clock illustrated stands just 15ins. high and is 5½ins. wide.

As usual, all the material required is supplied by Hobbies, even to the actual clock movement which fits in the top. A special reliable set of works is provided, and particulars of cost of wood and of this movement are given herewith, as well as on the actual design sheet.



A cut-away view to show the parts.

Small Parts

The work involved is straightforward, but, of course, various fretted portions and scroll decoration will have to be undertaken carefully to give the best result. On the other hand, all the parts are quite small and cut from material 3/16in. thick. In consequence, the worker with even the smallest handframe can undertake the cutting quite easily, and as the parts are so easily handled there is very little likelihood of damage.

Almost any class of fretwood can be used, but we should recommend oak as preferable because of its strength and looks. It is not advisable to use plywood because so many of the edges of the parts will be seen, and the ply looks unsightly. On the other hand, in plain oak, the finished clock can be left in its natural wood so it gradually deepens in colour with age. Or, of course, it can be stained darker to bring out the rich grain of Hobbies oak.

In Three Sections

All the necessary parts are shown full size on

MATERIALS SUPPLIED

For making this model of a Grandfather Clock, a parcel of select Oak is supplied including two fancy finials, and sufficient Moulding for 2/6 or post free 3/3.

The Clock Movements obtainable are an 8-day with Chromium plated rim, 12/6 or a 30-hour movement, 6/9. Postage on the clock movement is 6d. Postage on wood and clock movement when sent together is 9d.

the design sheet, but before cutting them up and pasting to their respective pieces of wood, it is advisable to have some rough idea of the actual construction. The clock, as seen in the picture, is in three distinct sections. There is the base portion, the centre portion, and the top.

All these are complete hollow boxes in themselves which are finally glued together one on top of the other to compose the total upright shape. At the top finally is added a little decorative pedestal, and two fancy turned finials which can be seen projecting from each of the front corners.

The fretted portion is confined, it should be noted, to the front and two sides only. The back is left quite plain except for the circular opening at the top where one gets in at the clock movement for winding, etc. Notice, therefore, that in most cases where only one pattern is shown for two parts, the second part is required to the outline only.

The Patterns

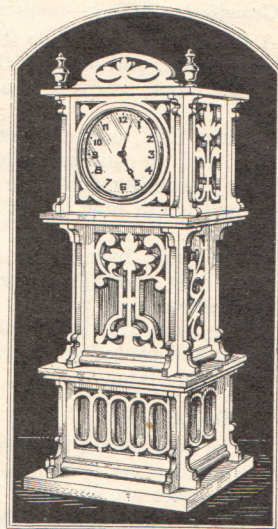
For instance, take the long section of the front and back—shown at the bottom lefthand corner of the design sheet—the front piece is exactly as printed on the sheet, but the back is cut to the outline with, of course, the addition of the long open halving joints at F.

This outline can be easily obtained after one has cut one of the pieces out. Having gone round the outside with the fretsaw, lay the cut piece on to another piece of wood, and mark round very carefully with a sharp pointed pencil. The other method, of course, is to trace off a duplicate of the pattern printed, taking great care to ensure the open halving joints are drawn accurately.

Halving Joints

Most of the parts, it will be noted, are held together by this halving joint, and this is one of the great points to note in the cutting. The joint in the sides is cut the opposite direction to that in the front. The two pieces thus slide together until the top and bottom edges are flush all round, and a hollow box framework is formed.

This hollow framework is, in turn, stood on a base and is there glued and screwed in position.



Design No. 2067

Grandfather's Clock—(continued)

A top is then added so it projects equally all the way round, and one has then the complete section of the clock ready to place against the adjoining one.

This, then, is the general principle of construction, and we can now take the actual work step by step, assuming that the worker has a complete knowledge of how to cut, clean and generally put together.

The main base is cut in $\frac{3}{8}$ in. wood, measuring 6 ins. long and $3\frac{1}{2}$ ins. wide. The pattern of this part shows the pattern of the pediment in the centre, and the latter piece must be cut out in paper and pasted down to $\frac{3}{16}$ in. board for cutting and fixing later.

The Dotted Lines

The position on the base of the lower portion of the clock case is indicated by dotted lines, and screw holes are shown. These can be drilled from the underside so when the framework is glued on, the screws should be driven upwards into the edges to make a firmer joint.

Cut the four pieces forming the front, back and sides of the lower section, and halve them carefully together, then stand them on this base, gluing them in position centrally and screwing them up as previously mentioned.

Backing the Frets

Before going further, it will be necessary to decide whether these fretted sides are going to be left open or whether a piece of material is going to be put behind the fretwork to help to show it up. Veneer paper is obtainable which has a substance like coarse brown paper, but which is faced on one side with imitation wood, giving it a striking appearance.

It is supplied in sheets 22 ins. by 30 ins. at 4d. per sheet, from Hobbies Ltd., and one of the sheets is sufficient to complete the whole of the work. You can have it in grey, walnut, green and red, and it just depends what class of wood you are using as to what the backing should be.

It can be cut to fit behind the fretted panels of the front and sides, with a pair of scissors, and then glued in place close up to the fretwork. Other fancy material can be used if preferred, but in any case this lining has to be put in before the top is glued on.

The Lower Section

The top of this lower section is $\frac{3}{16}$ in. thick, $5\frac{1}{8}$ in. long and $3\frac{1}{8}$ in. wide. Here again the screw holes are shown through which the various upper and lower parts can be screwed on to strengthen the glue. This top is glued to the lower section, and screws driven downwards to hold it in place.

The pattern for this part, it will be noted, is the same size as that which forms the top of the centre portion, whilst the base of this centre portion (C) is the same size as the base of the uppermost piece contained in the clock face. All these parts are lettered clearly in the sectional drawing in the top righthand corner.

The centre piece is built in the same way as the other, and consists of a base and top with four upright sides between. See all these sides are fretted and the back is left plain. The lining is added as before, and the whole thing is glued centrally on to the main lower portion previously made.

The Top Case

The top section is slightly different from the others, although in general principle it is built in the same way. There are the front and back, two sides and top and bottom, but in this case there is a central support piece which holds the barrel of the clock movement in position.

The position of this clock support is shown by dotted lines on the pattern of the top. The front is indicated by the pediment piece which comes immediately in line with the front of the clock case itself.

The clock support comes 1-1/6 in. behind, and the back is glued on $\frac{1}{2}$ in. behind that.

The Complete Case

The cut-away view given in the drawing herewith shows these positions clearly. Build up the top section as before by putting back, front and two sides on to the base (E). In this case there are three large circular openings to be cut, and the clock movement should be at hand in order to ensure these openings are the right diameter.

The usual lining material should be glued in place, and then the support part glued near the back to hold the metal barrel of the clock. Little blocking pieces can be added to the floor to keep this support upright, and finally the top is glued on and strengthened with screws. This top, it will be noted, has two little holes at the front corners. These are to take the ornamental finial (No. 13) which is illustrated on the sheet and supplied by Hobbies Ltd. ready to glue in.

Fixing Together

All three sections are glued together one above each other, and tiny screws can be driven in further to hold them, if necessary. Apply the glue thinly and evenly, using the tip of the finger to rub it well into the grain of the wood, then press the parts together firmly, and leave them all until the glue has set.

The base of the centre portion, and the base itself is decorated with short pieces of fancy moulding. This is cut off square so it fits between the projecting parts of the sides and front, and glued in the angle with the tiny fillet uppermost. There is no moulding on the back.

Fitting the Clock

The clock supplied is fitted through from the front, after the loose back plate has been removed. When in position and upright, this back plate is replaced on the projecting spindles behind the centre support, and there held tight by replacing the little turned screws.

A NOVEL GARDEN BARROW

HERE is a useful and novel garden appliance for keeping the lawn and garden clear of leaves and rubbish. It is, as the sketch shows, a container on wheels which is easily pushed about and turned round in any desired position while gathering up unwanted rubbish.

The box or container is made of $\frac{3}{4}$ in. wood to the measurements given (Fig. 1). It must be noticed that the back of the box—that part to which the handle and the axle of the wheel is fixed, is a square cut piece 15 ins. long by 9 ins. wide, whereas the sides are cut to a taper from 9 ins. at the top to 7 ins. at the bottom.

The front also is cut square, same as the back, only it is $\frac{1}{2}$ in. longer to allow for the taper of sides. Notice that the sides go in between the front and the back, nails or screws being used for fixing. Take careful measurements for the floor piece which will drop in and then nailed to sides, front, etc., as shown (Fig. 2). Clean off with coarse glasspaper the sharp edges of the box or just plane if desired.

Two first-class wheels for the article may be got from Hobbies for 8d., these are of hardwood, nicely turned and bored ready for the stout screws

and washers which are supplied with the wheels. The axle to take these wheels consists of a piece of stuff 11 ins. long by $1\frac{1}{4}$ ins. by $\frac{3}{4}$ in. and fixed to the base of the box with three stout countersunk screws (Fig. 3).

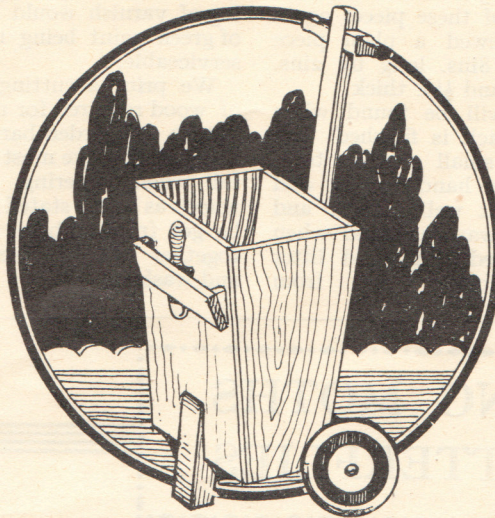
Do not put the wheels on until after all the other work has been done. The stump foot supporting the box when at rest, consists simply of a piece of deal about 6 ins. long, 2 ins. wide and $\frac{3}{4}$ in. thick, cut to the shape shown in the detail (Fig. 2) and fixed with two screws. The corners and sharp edges should be cleaned off.

The length of the handle is suggested as 24 ins., this being varied to suit. It is of $1\frac{1}{4}$ ins. by $\frac{3}{4}$ in. stuff and simply screwed to the top portion of the box (Fig. 3). At the top of this handle

piece is fitted a cross arm

for ease in manipulating the wheels. The cross arm is shown (Fig. 4) marked off and with a recess cut in the middle to hold firmly to the upright. It is of $1\frac{1}{4}$ in. by $\frac{3}{4}$ in. stuff. The hand grips of this piece are rounded off with a rasp and smoothed up with coarse and fine glass-paper.

A very useful addition to the box



CUTTING LIST

4 pieces	15 ins. long	by	9 ins.	by	$\frac{3}{4}$ in.	thick
1 piece	9 ins.	"	"	8 ins.	"	"
1 "	11 ins.	"	"	$1\frac{1}{2}$ in.	"	"
1 "	6 ins.	"	"	2 ins.	"	"
1 "	24 ins.	"	"	$1\frac{1}{4}$ ins.	"	"
1 "	6 ins.	"	"	$1\frac{1}{2}$ ins.	"	"
1 "	4 ins.	"	"	$1\frac{1}{2}$ in.	"	"
1 "	8 ins.	"	"	2 ins.	"	"
Two wheels No. 604—5 ins. diam. at 8d. pair.						

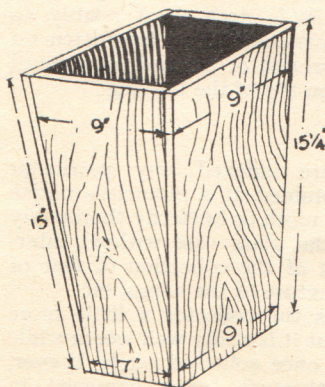


Fig. 1.—The main box framework.

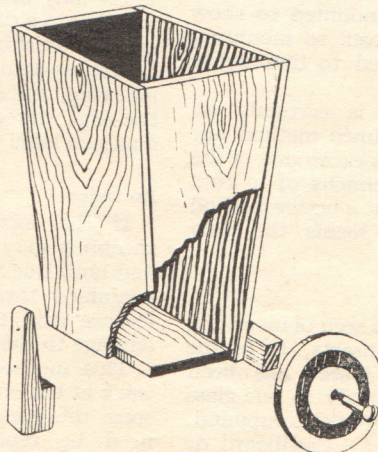


Fig. 2.—A general picture of the construction.

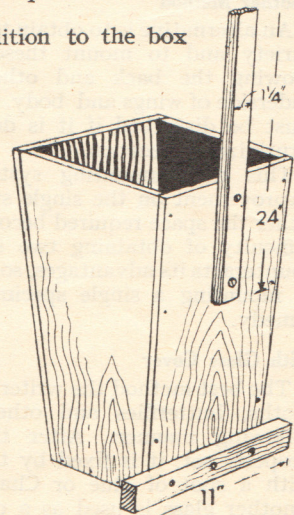
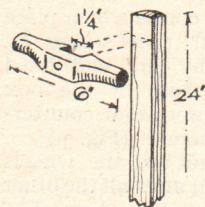


Fig. 3.—The handle upright and wheel axle.

A Garden Barrow—(continued)

is the tool rack along the front. This consists simply of two shaped ends cut as the enlarged detail shows from $\frac{3}{4}$ in. stuff and screwed on from inside the box about 5 or 6 ins. down from the top edge. To the front of these pieces again is screwed a plain piece about 8 ins. long by 2 ins. wide and $\frac{1}{2}$ in. thick.



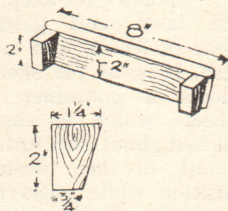
Making the handle.

It will be found when this rack is finished that such small garden tools as the hand trowel and fork fit well into it and are always at hand when required. A weed lifter for picking weeds from

a grass lawn would also be easily carried.

The completed box should be glasspapered up and then coated with some wood preservative such as creosote or a good green stain given with a coating of varnish would look attractive. Two coats of green paint being most serviceable.

We print a cutting list of wood required for making up the garden barrow, this should prove most useful when ordering. The wheels as before stated may be got from Hobbies Ltd. together with the screws and washers.



The tool rack.

MOUNTING MOTHS AND BUTTERFLIES

TO the amateur naturalist, the mounting of moths and butterflies sometimes presents considerable difficulty since specimens must be protected against dust, atmospheric moisture, daylight and most of all—damage. But there are so many methods of mounting that it only remains to choose that method which suits particular circumstances best.

The simplest way of mounting is to stick a pin through the body of the insect into the bottom of a shallow box or drawer, but this only allows the back or upper side of the specimen to be examined and the much that is of interest on the under side can only be seen by disturbing the mounting.

Another Method

An alternative is to obtain two specimens of each variety and to mount these side by side, one showing the back and other mounted to show underside of wings and body. Even so mounting must be disturbed if it is desired to thoroughly scrutinize a specimen.

This dual mounting system is certainly an improvement on the single specimen method but either the space required becomes enormous, or the difficulty of obtaining two specimens of a kind counteracts its advantages, so that a better method of mounting a single specimen seems the only remedy.

With Glass Cover

The best method the writer has seen of mounting moths, butterflies and other insects, is in the following manner. After the insect has been properly set, it is fixed by the body to one glass with a spot of glue or Chatterton's Compound. Another glass is used as a cover. Cardboard or wooden packers, of sufficient thickness, are placed between the two glasses at the edges to prevent

crushing the specimen. The whole being bound with *passe partout* binding, thus making the completed mount like a shallow box with a glass top and bottom.

Lantern slide cover plates or old $3\frac{1}{2}$ in. by $2\frac{1}{2}$ in. negative plates (with the emulsion washed off) are possibly the most suitable for the average British insects, although larger photographic plates may be used should the size of the specimen demand it. Various size pieces of glass are also shown in Hobbies Handbook or a list is obtainable on request.

Dustproof

The advantages of this method of mounting are that the mounts are dust-proof and moisture proof, the insects being hermetically sealed in their cases. These may be stored away by being packed close together in a drawer or box to exclude the daylight and its ravishing effects.

This system also lends itself most readily to indexing, since all particulars may be written on the edge stored uppermost or marked on a small gummed label stuck on top of the binding.

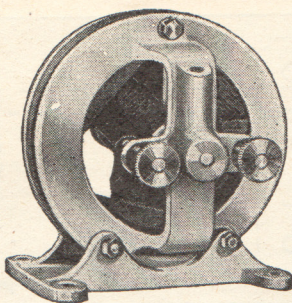
An Index

If the mounts are indexed, any particular specimen may be obtained at a moment's notice and both sides of the moth or butterfly thoroughly examined through the glass case without interference with the rest of the collection or fear of damage to the fine texture of the wings, etc.

This method gives the collector a little more work at the outset but it is really well worth while since the specimens once collected rarely, if ever, need be replaced through being damaged in handling or through the delicate colouring of the wings being faded by the daylight.

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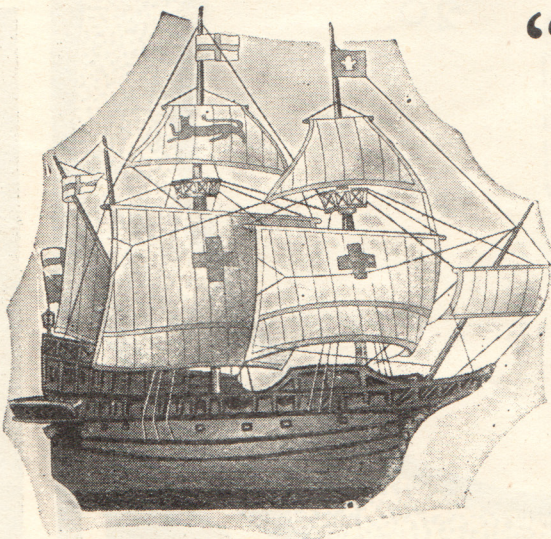
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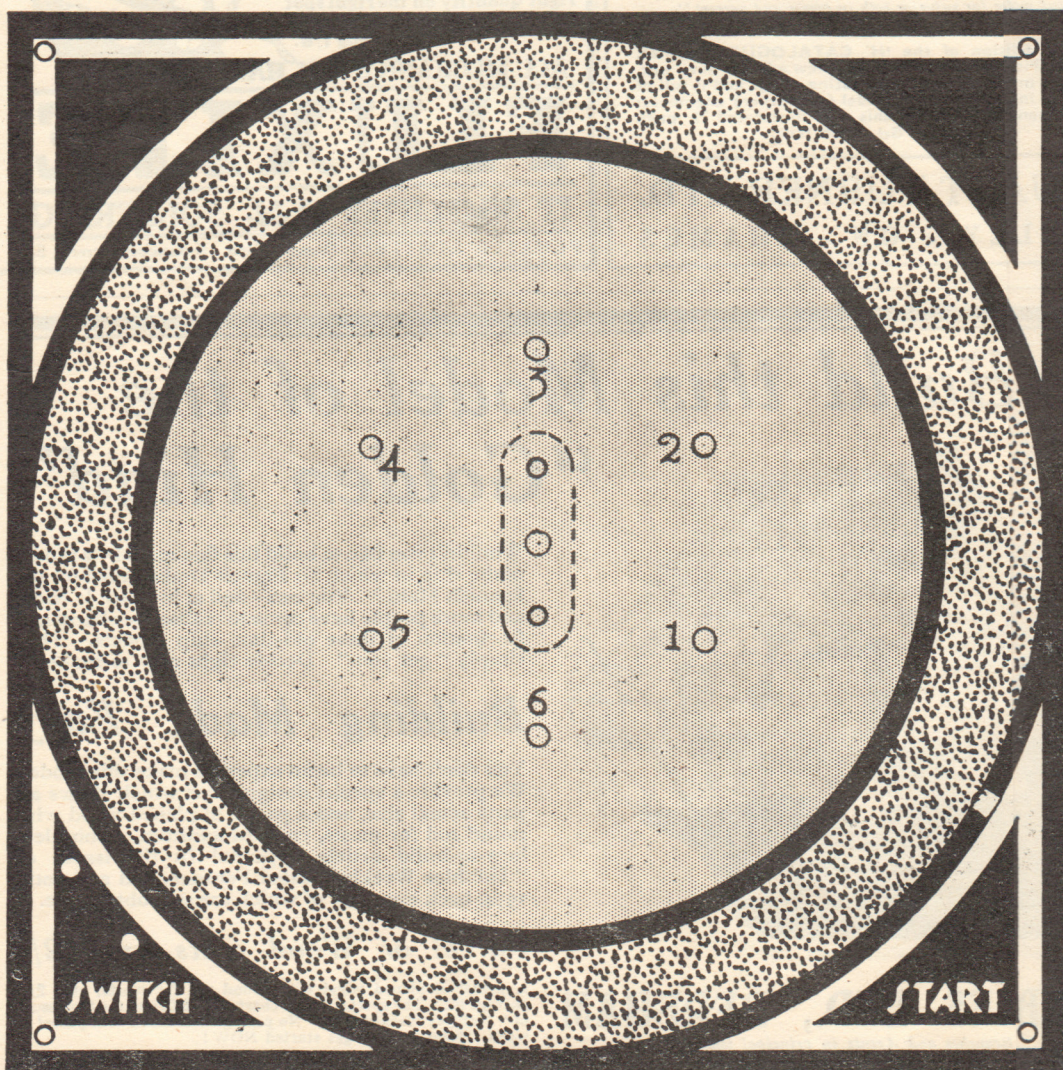
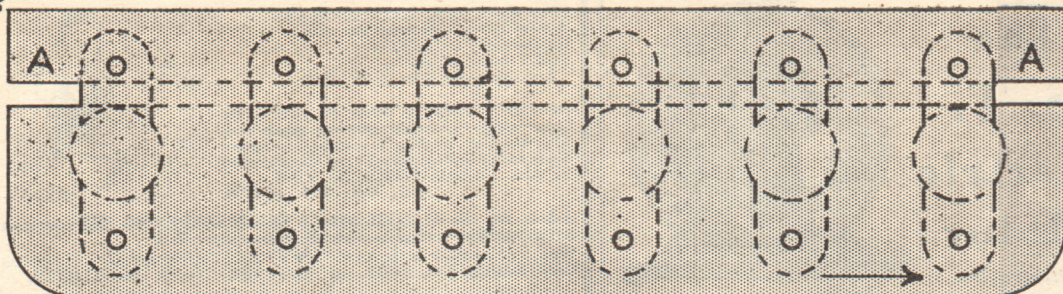
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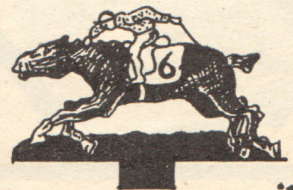
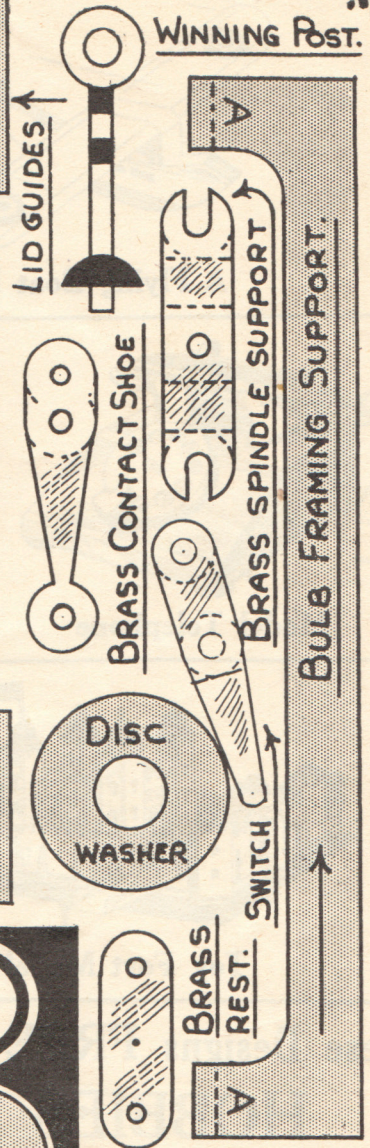
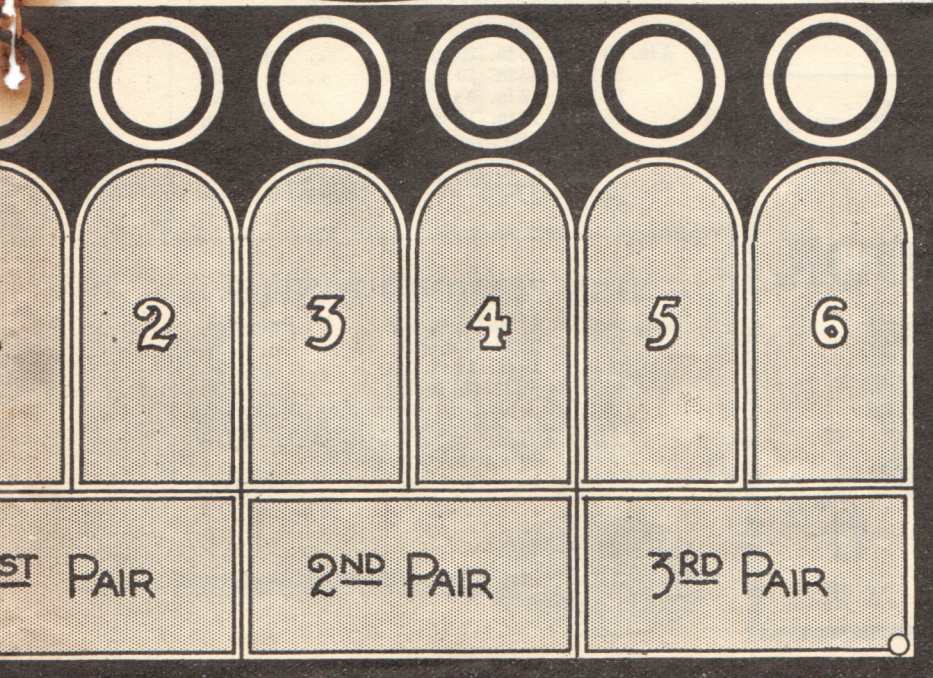
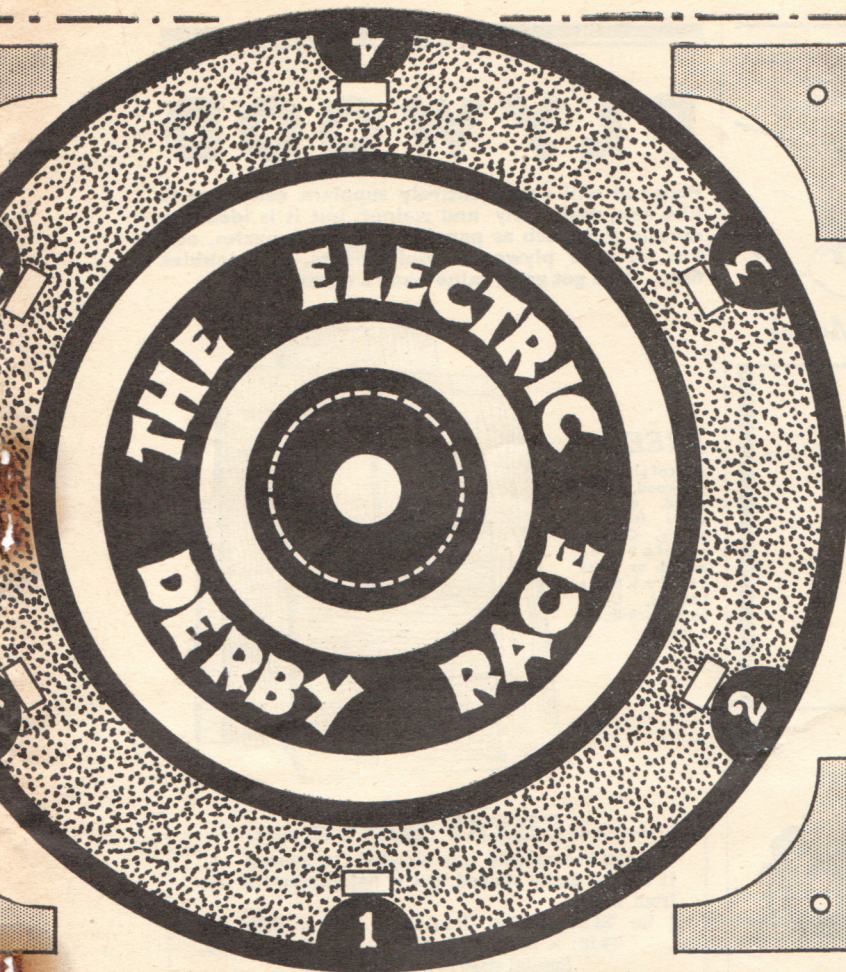
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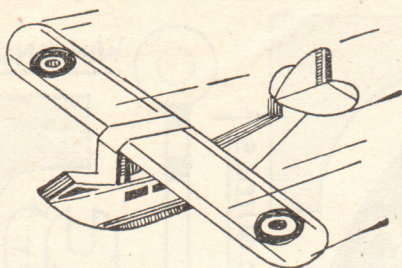
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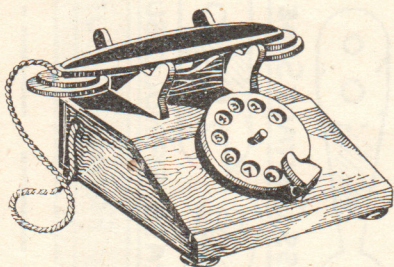
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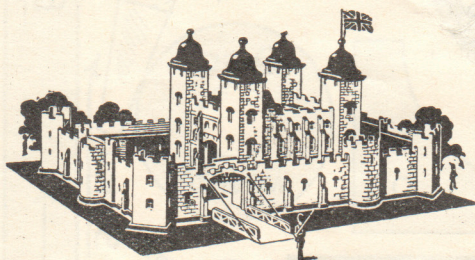




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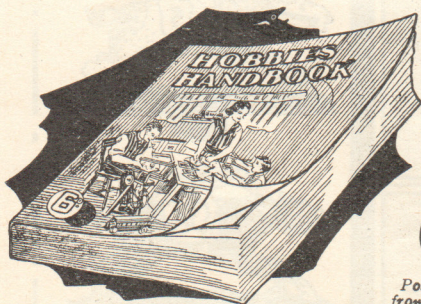


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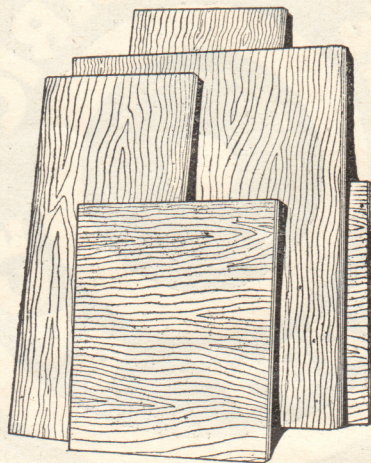


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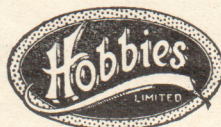
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It is best to order these thin panels with thicker boards as the cost of postage, if sent alone, is almost as much as the panel itself. The 48 in. × 10 in. panel is too large for post and is sent carriage forward.



KEEPING FOREIGN BIRDS

Continued from the issue dated May 18th.

HAVING everything ready as advised in the former article, the next step is to acquire the birds.

This may be done in a number of ways but it must be remembered that many of the cheap foreign birds offered by dealers in this country are not safe to buy if recently imported. Some species are safer than others but the majority are 'risky' as they have, quite naturally, suffered from their long journey and not had a sufficiency of time to recover.

After Twelve Months

Fully acclimatized birds are those that have been in this country for, say, twelve months and have become accustomed to our climate. Such birds are far more likely to live than those that have only just arrived.

Even fully acclimatized specimens should not be turned out in an aviary in the Winter for the first time, but in the late Spring or early Summer, so getting gradually used to the cold weather when it comes.

British-Bred Specimens

Many species of foreign birds, however, are being bred annually in cages and aviaries in this country and British-bred specimens of the more popular species, suitable for beginners, are usually obtainable.

Naturally, the price of these British-bred specimens is higher than that of newly imported or acclimatized birds, but they are not necessarily dearer in the long run!

The beginner cannot do better than visit the aviaries of a reliable breeder, see the birds for himself, make a selection and bring the chosen home.

Another course is to order by post from advertisements, the birds being sent on by rail, packed in small boxes with food but no water. When buying from dealers or bird shops, first ascertain if the birds have been kept indoors or out of

doors. It is advisable, also, to buy 'on approval,' if possible, depositing the money with the Editor of the paper in which the advertisement appears.

If this course be adopted and, on arrival, the birds are not satisfactory, they may be returned after, say, twenty-four hours to feed and rest. The money is then refunded, less a slight poundage, and payment of carriage one way.

In dealing with reputable firms and reliable breeders, this is unnecessary.

Suitable Species

This article is specially written for the beginner and novice breeder and only recommends the hardy species of Hard-bills or Seed-eaters.

Among the Foreign birds most commonly kept, and suitable for beginners are: Zebra Finches, Lavender Finches, Silverbills, Fire Finches, Orange cheeked Waxbills, Cordon Bleus, Nutmeg Finches, Avadavats, Red-eared Waxbills, Bengalese, White Java Sparrows and Long-tailed Grassfinches.

Individual birds, however, like human beings, differ in temperament, and the only safe rule is to keep only birds of a like size in the same aviary, unless of course, the aviary is a large one.

Spiteful and Perky

All Waxbills are quite safe together and to this collection could be added the Bengalese.

Long-tailed Grassfinches, in the writer's experience, have proved very spiteful little creatures to smaller birds during the breeding season.

Zebra Finches, too, are perky little busy-bodies and not to be trusted with smaller birds, especially at breeding time. They have a nasty habit of entering other birds' nests, throwing out the eggs and robbing the nest of its feathers for their own home.

If breeding is seriously contemplated the aviary must not be overcrowded. Many Foreign birds, are free breeders under favourable conditions,

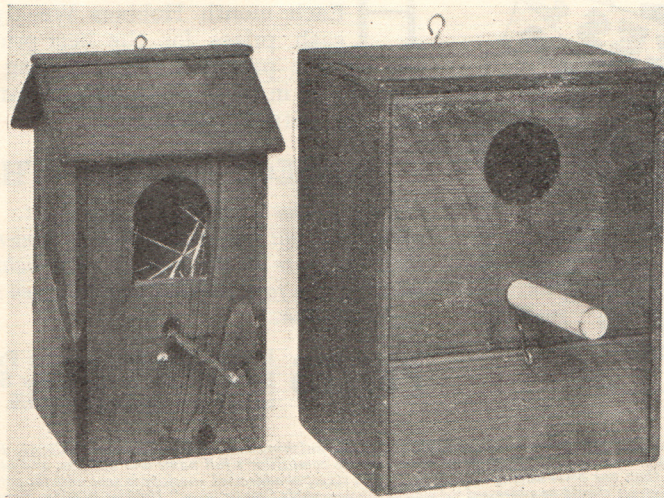


Photo by permission
Allen Silver, Newport.

Two suitable types of Nest Boxes

Foreign Birds—(continued)

foremost among them being the Bengalese, White Java Sparrows (not the Grey Javas, which seldom breed at all, unless they are British-bred specimens) Zebra Finches, long-tailed Grassfinches and various members of the Waxbill family.

There are many other Foreign birds, including Crimson Finches, Spice Birds, Cuban Finches, Grey and Green Singing Finches, Chestnut Finches, Combasous, Cherry Finches and other varieties, all of which afford a delightful array of colour.

Feeding

For the writer's own aviaries he uses a staple seed mixture of six parts good quality small canary seed, six parts white millet and three parts Indian millet. Millet Sprays are also supplied, which is the form in which the Indian millet is grown.

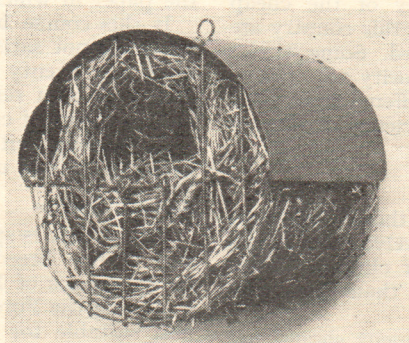
All birds should have a regular supply of green food in the form of ground-sel, dandelion, chickweed, seeding grasses, etc., and occasionally, a little fruit should be offered such as a ripe pear, apple or a banana. This is not absolutely essential, but is certainly beneficial.

When obtainable, Aphides (green fly) and ant's cocoons should be supplied, especially during the breeding season and when rearing young.

Fresh drinking water should be given daily and

also water for bathing. Do not use a large, deep dish for the bath or some of the smaller birds may drown. It is a good plan to keep a few stones in the bottom of the bath.

A small roundish grit should be kept in a shallow dish, clear of the perches so as not to be fouled by the bird's droppings, and a piece of Cuttlefish bone nailed up in the aviary.



Another style of nesting.

Breeding

Nest-boxes of the designs, illustrated, should be hung up in the aviary shelter and flight being disguised with bunches of heather. Into each receptacle push a few soft pieces of hay and also provide cow-hair, some moss, dried grasses, etc., for further nesting material, not forgetting some fluffy chickens' feather. The birds will soon take to the boxes and, provided the aviary is not overcrowded, will carry on their domestic duties without any

further assistance from the owner.

Leave them alone!

One last piece of advice in the matter of breeding—do not be inquisitive! If you miss a hen bird, do not poke your nose into every nook and corner. She is probably nesting and, if left severely alone, will most likely reward you with a brood of little chicks.



HERE is a chance to make your camera pay! Each month Hobbies Weekly are presenting cash prizes for the best print submitted in the subject provided. The winning efforts will be reproduced in these pages with remarks of the judges on the entries generally.

SUBJECT for MAY—THE FARM

Here you have a subject full of interest. Farm work is so varied you will find endless pictures of men at work. Besides these there are all the animals. The light is at its best this month and a fast snapshot can be given without danger of under-exposure.

PRIZES

In the Open Section a 1st Prize of £1 and a 2nd Prize of 10/-. In the Junior Section the 1st Prize is 12/6 and the 2nd Prize 7/6.

RULES:—The subject must have been taken by the competitor, but the finishing may be done by a professional. Prints of any size may be entered and can be mounted or unmounted. Each print must bear the competitor's full name and address, and his age if under 16 years. No competitor to take more than one prize during the season. If a stamped addressed envelope is sent with the entries every endeavour will be made to return them. Entries should be addressed "Amateur Photographic Competition" Hobbies Weekly, Dereham, Norfolk, and must arrive not later than May 31st. The Editor reserves the right to publish any entries he wishes in Hobbies Weekly. All competitors under 16 years of age will be adjudged in the Junior Section.



IN a previous article it was pointed out that practically all the chemicals used for photographic purposes might be purchased in tabloid form or as single solutions, needing only the addition of water to be ready for use. When starting photography, it is well to buy one's developers, etc., ready made for when failure occurs—as is inevitable sometimes—one knows at least that the solutions were not to blame, thus helping to trace the cause of trouble.

Naturally, one has to pay for the convenience of these ready made compounds and it is certainly cheaper to make your own. Besides this, there is for many people a certain satisfaction in making up a formula and knowing the exact ingredients in a given solution.

The quantity one makes up of any solution depends, of course, to a certain extent on the amount of work on hand, but also on the keeping qualities of the different constituents, some being extremely unstable in solution. Hypo, the commonest of all the photographer's chemicals, keeps well both in crystal form and in solution.

Keep Dry

Therefore, this can be made up in large quantities at a time. The crystals are slightly hygroscopic, that is inclined to attract moisture, so that it is better to store them in a stone jar or wide mouthed bottle, rather than in a paper parcel. Hypo solution keeps almost indefinitely, it is an economy both in time and money to make it up in fairly large quantities.

The usual strength recommended for a hypo bath is 4 oz. to the pint, so that if one makes up a stock solution of 8 oz. to the pint, all that is needed to prepare it for use is to add an equal amount of water.

A Winchester quart, that is a bottle holding 80 ounces, will last the average amateur a long time, and one great advantage of having a plentiful supply of hypo always at hand is that you are not tempted to economise; a fresh hypo bath should always be used for each batch of films or papers. If you do not want to make

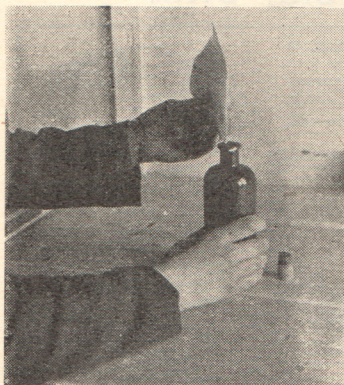
up so huge a quantity, a large lemonade bottle can be used quite well.

If the kitchen or bathroom is being used for your operations, be careful not to spill any of the solutions about as many of them cause stains, hypo is particularly dangerous, removing the colour from most fabrics. A sheet of American cloth or several thicknesses of newspaper spread on the table, will prevent ugly stains resulting from solutions being 'slopped' over.

To prepare a stock solution of hypo. Weigh out the required amount on a pair of scales; the type shown in the photograph are cheap to buy, but the household scales can be used if a clean sheet of paper is placed in the pan. This should always be done, by the way, in order that one chemical not be contaminated by another.

To pour the crystals into the stock bottle, place them in a sheet of paper and fold it in two, this forming a funnel. The

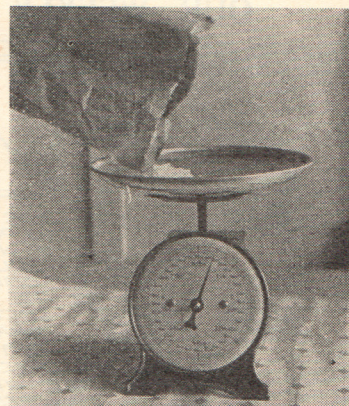
HOW TO MAKE YOUR OWN SOLUTIONS



Slide crystals into a bottle with a sheet of paper.



Avoid mess in pouring by using a funnel.



Scales for weighing out hypo.

Photographic Solutions—(continued)

crystals being then gently slid into the bottle. Hypo dissolves very easily in hot water, half fill the bottle with hot, but not boiling water.

To avoid spilling, use a funnel. Replace the stopper in the bottle and shake until the crystals are nearly dissolved, add some more water and repeat, when all are completely dissolved, fill the bottle up to the top. Do not use the hypo until cold.

Making Hypo

To make a solution of Acid Hypo add about 1 drachm of Potassium Metabisulphite to each ounce of Hypo crystals, the exact amount is immaterial. Potassium Metabisulphite loses its strength in hot water and has to be added to the stock Hypo solution after the latter has cooled.

The ingredients of a solution should always be dissolved in the order given by the directions. When making up a solution of M.Q. developer this is the method employed :

Metol	15 grains ;
Hydroquinone ..	60 grains ;
Sodium Sulphite ..	1 ounce ;
Sodium Carbonate	1½ ounces ;
Potassium Bromide ..	20 grains ; and
water to	1 pint.

Boil rather more than the required amount of water for a few minutes, allowing to cool slightly. Weigh out the Sodium Sulphite and place in an enamel jug. Pour on part of the water, stir until the Sodium Sulphite is completely dissolved. Weigh out and add the Metol, Hydroquinone, Sodium Carbonate and Potassium Bromide, seeing that each is dissolved before the next is added. Make up to one pint with the hot water. The Sodium Sulphite must be dissolved first or the solution is inclined to oxidise.

If this solution is stored in small bottles, six or four ounces in size, it will keep far better than in a large bottle, where it is likely to oxidise as the

bottle empties. The bottles should be tightly corked. This mixture can be used for plates, gaslight papers and with an equal quantity of water for bromide papers.

When making up Amidol developer, only sufficient for the day's work should be used as Amidol keeps only a few hours in solution. Amidol is a light powder and is very liable to fly about when being weighed out. Tiny particles falling on a plate or sheet of sensitive paper causes a purple stain, this dangerous chemical should not be allowed in the darkroom except in solution.

For weighing small quantities of chemicals, apothecary's scales are necessary. Some people find them difficult to use. The tip is to steady the pans by resting them on the table and then gently raising and pouring in the powder. The scales are used when drachms or grains have to be weighed. Apothecary's measure is used in photographic formulae, and the following table should be committed to memory :

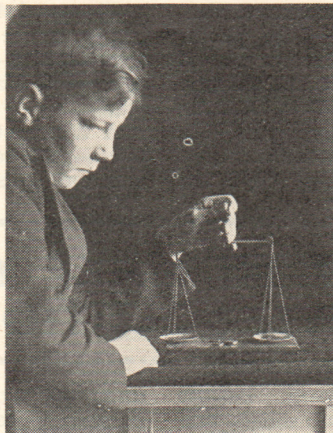
60 grains—1 drachm ;
8 drachms—1 ounce (apothecary's) i.e., 480 grains.

Scruples are not used nowadays.

Where metric measures are used, it should be remembered that 1 gramme is approximately equivalent to 16 grains.

Sizes of Beakers

When measuring liquids, a graduated beaker is used. Convenient sizes are 4, 2, and 1 ounces, and 2 and 1 drachm, but one can quite well manage with fewer than these. To measure a liquid, hold the beaker in the left hand, and with the third and fourth fingers of the same hand remove the cork from the bottle, this being held meanwhile in the right hand, label uppermost. This ensures that no drips fall on the label and obliterate the writing ; the cork being not mislaid or contaminated with



Steady the pans on the table when weighing

OUR WEEKLY PHOTOGRAPHIC PICTURE STRIP

PHOTOGRAPHS OF CARS ON HILLS ARE OFTEN DISAPPOINTING, THE ROAD APPEARING FLAT—ONE WAY TO OBTAIN A FAIR—

LY GOOD IMPRESSION IS TO GET ABOVE AND TO THE

— CARS BREASTING A RISE WILL OFTEN ... GIVE A SATISFACTORY IDEA OF HILL CLIMBING AND STIFF COUNTRY. (SEE BELOW)

SIDE OF THE ROAD AS PER POSITION "B" WHEN THE RESULT WILL BE SOMETHING LIKE THE LEFT HAND SKETCH. PHOTOGRAPHS TAKEN FROM THE ROAD LEVEL (POSITION "A") WILL ALWAYS APPEAR FLAT (AS ABOVE.)

(ALSO NOTE) —AN INCREASED IMPRESSION OF A CAR'S SIZE IS GAINED IF IT IS TAKEN FROM ROAD LEVEL AT THE "THREE-QUARTERS" POSITION—SIZE IS APPARENTLY DIMINISHED IF TAKEN FROM ABOVE.

Photographic Solutions—(continued)

other chemicals on the work bench. Hold the beaker at eye level when pouring into this, replacing the cork in the bottle.

Cleanliness is an essential of good photography. The dangers of particles of amidol in the dark room have been mentioned. Measures should be kept scrupulously clean and washed immediately after use. No vessel used for Hypo should ever be used for any other chemical.

Measure Solids

To facilitate the quick compounding of solutions it is possible to measure many solids, a quicker method than weighing. Procure from a chemist a 'nest' of pill boxes—that is a set of 3 or more fitting one inside the other and some chip ointment boxes of various sizes. After having weighed out a chemical in common use it will frequently be found that this will fill almost exactly one or other of these boxes, and on future occasions you need only fill the box to obtain the required amount. Naturally, each chemical has to be tested separately,

they vary in bulk. The tin scoop, supplied with some makes of flashlight powder, holds exactly ten grains of Amidol. It is as well to mark each box with its capacity for each chemical.

Potassium Bromide, a common ingredient of many formulae, is most easily dispensed from a 10% solution; the required amount can then be measured instead of a few grains being weighed each time. To make this, dissolve 40 grains of the Bromide in each ounce of water.

A Special Jug

A large jug is a convenience for the making up of solutions and if this can be kept solely for photographic purposes, so much the better. A stirring rod is also needed, either vulcanite or glass. The jug can be marked with Indian ink inside showing various amounts.

All chemicals keep best in a dry cool place. Corks should be well fitting and tightly pressed home. Solids are best kept in screw topped bottles.

Photographic Prize Winners in April

FOR the April Competition the Subject was "Chums" and it was evidently a very popular one which brought in some excellent entries. The great stumbling block was—as usual—the background, and the winners are to be congratulated on the way in which they dealt with it so as to show up the subject to greatest advantage.

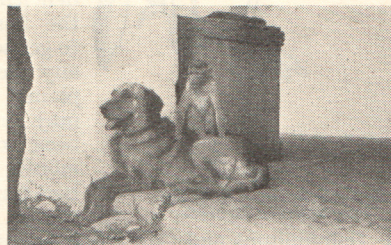
In the Senior Section J. Montgomery wins first prize with a charming picture, and is

closely followed by T. Christie who carries off the second with a well-arranged pair of chums. Competitors should note how cleverly Mr. Montgomery has chosen his background. Arnold S. Martin and Miss E. D. Reynolds put in a print which was highly commended. If the latter, had her background as good as her posing, she might have won a higher place.

In the Junior Section E. Parker (14) well deserves his First Prize for an excellent

group of chums, whilst R. Knight (13) takes second, and R. M. Smith (14) is H.C.

Those who were unfortunate in this Competition should try for a prize in the June Competition, particulars of which are given elsewhere.



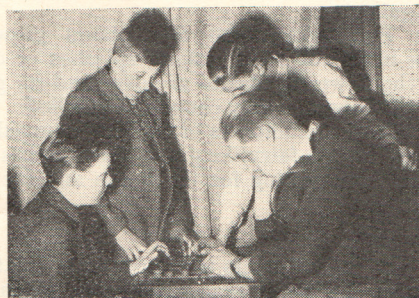
2nd Prize in the Open Section.



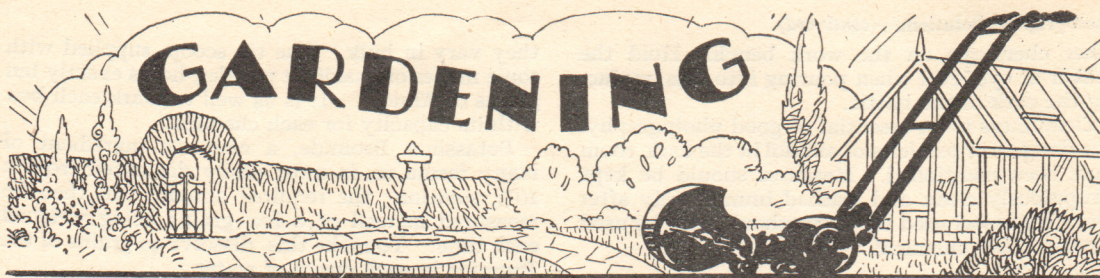
First Prize—Open Section



2nd Prize—Junior Section



First Prize—Junior Section



THE garden is at its best in June. Everything has the freshness of midsummer ; trees are at their greenest with not one discoloured leaf ; the herbaceous border is at the height of its glory and grass has not yet been scorched or bleached.

If staking has been faithfully performed among the hardy plants, there will be nothing to do there but enjoy the sight of so much beauty. The plants will be too high and bushy to attempt any weeding, for pushing among the plants only ends in broken stalks and trodden soil. It is better to leave any clumps of grass among the plants than to spoil the show.



The Aquilegia—one of the long spurred hybrids.

Phlox, Delphiniums and Gaillardias are among the nicest to raise in this way. If you have only room for a few new things choose *Digitalis* (Foxglove) and *Aquilegias*.

The Foxgloves make fine plants grown in clumps in shrubberies, making splashes of colour when the flowering shrubs are over and for giving dignity in a border they cannot be excelled. The *Aquilegias* or *Colombines* of the long spurred type (Suttons) have a fairylike grace which makes them delightful for cutting for the house and for table decoration.

Planting Out

In some cold districts they are better treated as biennials. In other places they are often self-sown, springing up in the most unlikely and very often delightful places.

Then the annuals, leaving sufficient room for

Of course, the most obvious ones at edges and in easily accessible places should be removed. Remember a weedless garden is not always the most charming.

Now is a good time to note any deficiencies in the border and to get seed in for any herbaceous plants which may not have been sown last month. Rainbow Lupins, *Anchusas*, *Lychnis*,

each plant to develop to its fullest extent ; this is the only way to succeed with annuals.

Shirley Poppies will well repay generous treatment and, in some opinions, they rival the sweet pea for table decoration.

The Sweet Pea, however, has lasting qualities which the Poppy lacks and it carries well. For these reasons it is worth growing well.

Show Blooms

Growing for exhibition purposes or for large blooms is usually done on the cordon system ; the stakes being bamboo canes. These, of course, should be in by now and the plants coming into bloom. It is not always good to confine the plants to a single stem ; strong growing kinds are apt to produce coarse flowers, if only one stem is retained. It is better to leave three on these.

Less vigorous ones should have two stems and the delicate plants only one. Tendrils which are superfluous should be removed and tying substituted. Laterals should be removed and also buds which are not required for flowering. Feeding with liquid manure is beneficial at this time. Any necessary watering should be done with water which has been tempered in the air for hours before using. Cold water injures the buds on plants.

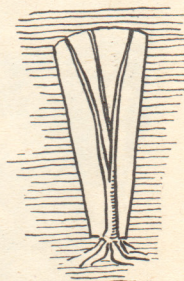
Peas and Roses

Sweet Peas grown as clumps will continue longer in flower if much picking is indulged in. This also applies to edgings of violas which can be kept in bloom over a much longer period if spent blooms are removed regularly.

Alpines may be increased at this time by division and pinks may be increased by pipings or by seed. Some very interesting pinks can be secured by raising from seed. It is a good way of getting new kinds and the less pleasing ones in the batch can be discarded.

Roses will be giving their first and finest blooms. Greenfly should be kept at bay and disbudding done to ensure finer specimens, though sometimes a bud or two about the rose, improves its appearance for decorative purposes—the artistic point of view often

WORK TO DO IN JUNE



A section showing the planting of a leek.

Gardening in June—(continued)

clashing with the gardener's unless the gardener happens to be that happy blend, a combination of artist and expert gardener. This is the kind of person who makes the most charming garden and bestows the finest bouquets.

Fine Colours

Some beds will be waiting to be filled with the tender bedding out plants. A bed of *Geranium Kavolesky*, of a beautiful Apricot shade looks well in grass and is much more uncommon than Paul Crampel. *Begonias* are fine for filling formal beds which happen to be in a shady place.

The *Semperflorens* varieties are suitable for bedding out, the Scarlet, Pink and White ones known as Bonfire (Scarlet), Pink Profusion (Pink), and Primma Donna (White) being very beautiful, the Scarlet and Pink ones looking well associated with White *Alyssum* as ground work or edging, the White looking well with *Lobelia Eriuns* Celestial or *L. Erinus* Cambridge Blue.

Wallflowers

Wallflowers sown early may be ready for transplanting to nursery beds. Bulbs which have been occupying reserve beds in this part of the garden will now have the foliage yellowed—a sign that they can now be lifted and, after drying on a sunny path, stored in a dry place till the autumn.

Of course, some bulbs are better left undisturbed but this is not always possible in a small garden.

IN THE VEGETABLE GARDEN

IN the vegetable garden growing crops must be kept clean by hoeing and, if necessary, hand forking. In hot dry weather mulchings of cut grass are beneficial and if these precautions are taken watering will not be so necessary.

Soft green weeds and grass from the vegetable ground are very useful at this time for top dressing *Rhododendrons* and *Azaleas* which are surface rooters and often suffer during dry weather. Besides providing the necessary moisture required by these shrubs in summer, this treatment feeds the plant and helps it to develop plump flower buds for the following season. So do not waste the green weeds but see that no perennial weeds such as docks or couch grass are included in any mulches.

Celery should be ready for transplanting to prepared trenches. Water well after planting. Leeks should also be ready for transplanting. This should either be done on the trench system or each leek can be dropped into a hole made with the dipper, no soil being thrown

into the hole. This is a quick and satisfactory method.

Beetroot and Carrots which have been sown a pinch of seed at each prepared place will require thinning, leaving only one plant to develop. Otherwise deformed roots will be the result. Onions which have been sown where they are to remain, should be thinned out to six inches apart.

Paraffin Oil and Water

Any bulbs which have foliage turning yellow should be suspected of having been attacked by the Onion Fly and should be discarded and burned. Apply Paraffin oil to the places which the bulbs have occupied. Give copious watering in dry weather. This applies to all crops in the vegetable garden but give a thorough soaking once a week rather than sprinklings every evening which do more harm than good.

Lettuces

Cauliflowers, Broccoli, Brussels Sprouts and Cabbages sown earlier in the season will now be ready for transplanting and later crops of Peas and Kidney and French Beans can be had by sowing now. Lettuces should be transplanted. Endive, the winter lettuce should also be sown at this time. It needs light soil with plenty of decayed manure and a sunny position. Sow in drills and thin out to six inches apart.

Varieties

Good kinds to sow are, Broad Leaved Batavian, Moss Curled and Fine Green Curled. As it is the blanched hearts which are used for salads, the plants when large enough, which should be in about three months time, should be blanched by tying the leaves together, as for Cos Lettuce, and then drawing the soil up about them.

In Winter the plants are sometimes blanched by having pots over them, the hole in pot being stopped with a cork or covered with slate. In very cold districts it is sometimes necessary to winter them in frames.

Tomatoes

Now is the time to look after those tomatoes and the marrows. The former can be established out of doors, but remember to plant them in a sunny sheltered spot. They will revel in the heat. Do not neglect to water them to make the little ones fill out to nice juicy fruit, but also remember not to water when the sun is full on the plants. Leave it until after sundown, and then give the roots plenty if the weather is dry.

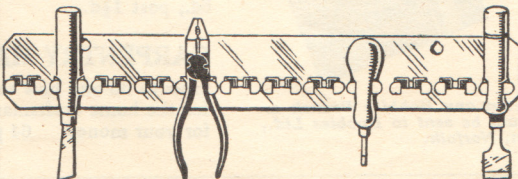
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STAMP COLLECTOR'S CORNER

IN the Jubilee Issue of the Philatelic Magazine is a paragraph which should interest readers in explaining one way in which stamps become rare. The writer is sure the editor of that magazine will not object to reference being made to the paragraph in question.

A neighbour was asked to assist an old lady to tidy up her house. In the attic a lot of old Victorian stamps were discovered which had been collected by a deceased member of the family. They consisted of Old Victorian "penny blacks," "two penny blues" and five or six hundred bundles, neatly tied up of the "Mulready" embossed stamp envelopes.

The friend asked the old lady what he was to do with these, and was told to burn the lot as they were only old rubbish. Thus about £500 worth of matter was consigned to the flames! Moral: Before you burn stamps find out what they are worth.

IN these days of very ornate designs it comes somewhat as a surprise to see a plain stamp such as that just issued by Portuguese Guinea, and there is thus very little to describe about this



charity stamp. The colour is greenish-yellow, and it is rather large. Perhaps this is as well since it is ungummed—it must be a very messy business sticking a very small stamp on to an envelope by means of gum! The larger size does at least allow one to gum one half and stick that down first then tackle the other half and so keep the fingers clean.

ANOTHER charity issue comes from the Dutch Indies. There are four stamps in this set—2 c. plus 1c., 5c. plus 2½c., 12½c. plus 2½c., and 15c. plus 5c. The

designs are different for each stamp, being respectively an engineer chopping wood, a soldier and a wounded man (as illustrated), and a bugler. It is not difficult to understand why the 12½c was picked out as the specimen to be shown.

Lately there have been some very disastrous earthquakes but fortunately nothing as bad as that which happened in 1883 when the volcano Krakatoa in the Dutch East Indies erupted. Then the number of persons killed was 30,000 including those who lost their lives owing to the huge wave which followed.

TURKEY has just issued a set of fifteen stamps in connection with the International Suffrage Congress held at Istanbul. Acknowledgment is made to Messrs. Whitfield King and Co. for this information.—On six of the stamps there are portraits of Nobel Prize winners, while on others are depicted some of the professions adopted by women, and the stamp illustrated shows a school mistress.

Incidentally, the geography lesson is presumably on the rivers of South East Europe and the adjacent region of Asia, for the otherwise blank map shows the rivers Danube, Dniester, Dnieper, Volga, Ural, Tigris, Euphrates, and the Nile.

The scene depicted appears to be a very homely affair, and even more so is the next stamp shown, one of an issue of three from Belgium.

These three stamps are of all the same design, and show the children of the King and Queen of the Belgians. The three values



MORE NEW ISSUES

are 35c. plus 15c., 70c. plus 30c. and 1fr. 75c. plus 50c., the extra amount being applied to raise



funds for the relief of distress among the unemployed in support of an appeal by Queen Astrid. The stamps will be issued until September 30th.

A VERY curious design has been employed by Mexico as the subject of the 10c. stamp issued in connection with the census. It appears to be a motor tractor with caterpillar wheels forging its way through an enormous cog wheel. In one corner there is a hammer and in the other or opposite is a sickle.



THE last stamp to be illustrated comes from France, and is the 1fr. 50c. stamp issued in connection with the launching of the Normandie. This huge ship is 79,000 tons displacement and 1,027 feet long. You should pace out 342 yards along a road and note the length of that, and only then will you be able to appreciate what an enormous boat this is.

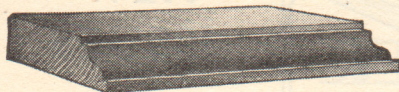
The Normandie was launched on Sunday, May 5th at St. Nazaire.



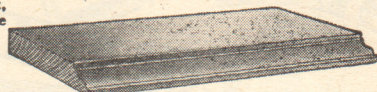
The pilot was Pilot-Major Serveaux, who is 65 years of age and retires from the French Line after 54 years of service.

MOULDING for the woodworker

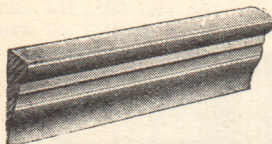
These are just the mouldings which the amateur carpenter needs. The base moulding and corner moulding are used in building up gramophone and wireless speakers and cabinets. The angle moulding No. 300, etc. is to cover bad corners, whilst No. 303 is as a cover moulding or drop ornament under an overhang. All are well cut, but quite cheap in price and suitable for any class of work.



BASE MOULDING.. 2ins. wide, $\frac{3}{4}$ in. thick.. No. 41.
OAK, 3 $\frac{1}{2}$ d. per foot. HAZEL PINE, 3d. per foot.



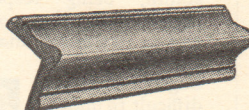
BASE MOULDING... 1 $\frac{1}{2}$ ins. wide, $\frac{1}{2}$ in. thick No. 42.
HAZEL PINE, Price 1 $\frac{1}{2}$ d. per foot.



MOULDING No. 303 Hazel Pine

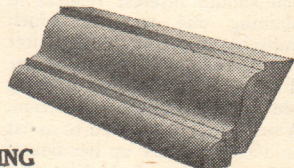
$\frac{3}{4}$ in.	..	1 $\frac{1}{2}$ d. per ft	1/3 per doz.
1in.	..	2d. " "	1/9 " "
1 $\frac{1}{2}$ in.	..	2 $\frac{1}{2}$ d. " "	2/3 " "

Postage Extra.



CORNICE MOULDING

2ins. wide, $\frac{1}{2}$ in. thick No. 43.
HAZEL PINE, Price 3d. per ft.



GROOVED MOULDING

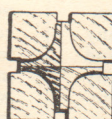
For cut-out calendars and statuettes. In light wood with $\frac{1}{4}$ ins. or $\frac{1}{2}$ ins. groove.
1d. per ft. 10d. for 12ft.

No. 300. — $\frac{1}{2}$ in. Sides. Price 3d. ft. 2/6 doz. ft.
No. 301. — $\frac{1}{2}$ in. Sides. Price 2d. ft. 1/9 doz. ft.
No. 302. — $\frac{1}{2}$ in. Sides. Price 1 $\frac{1}{2}$ d. ft. 1/3 doz. ft.

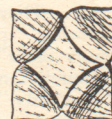
Give Reference Number when you order and include return postage.



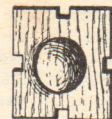
No. 230.—1 $\frac{1}{2}$ d.



No. 231.—2d.



No. 229.—2d.



No. 228.—1 $\frac{1}{2}$ d.

All these rosettes are in beech and measure 1 $\frac{1}{2}$ in. square. Suitable for ornaments on any work.

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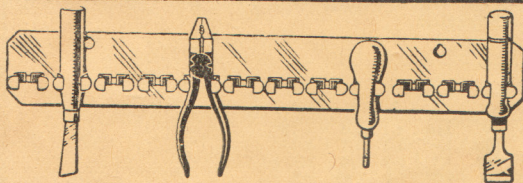
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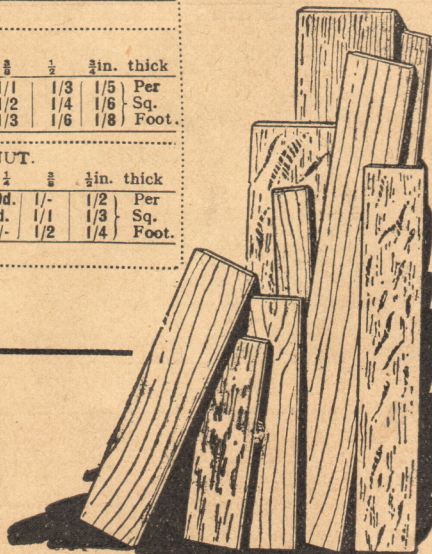
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